United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Wyoming State Office
P.O. Box 1828
Cheyenne, Wyoming 82003-1828

In Reply Refer To:

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APR 0 9 2004

Dear Permittee:

As of April 1, 2004, the Wyoming Bureau of Land Management (BLM) has implemented its guidance on recording cultural resource locations using Global Positioning System (GPS) technology. The attached document, "Accuracy Guidelines for GPS Mapping for GIS" should help you. In Wyoming we are asking for location data with a mean error of 10 m or less and a 95 percent confidence level. In addition, we are also providing a copy of the Washington Office Instruction Memorandum, which will provide you with the required national standard.

In addition, all data must be collected in NAD83. This information was discussed at the Data Tracking training that most permittees attended in Laramie this week. This letter is to confirm this policy and inform those archaeological consultants who were unable to attend the training. It is our understanding that Mary Hopkins, Deputy State Historic Preservation Officer, Cultural Records, has a list of acceptable receivers that will achieve the type of accuracy that we need. Please contact her if you have questions about your GPS receiver.

If you have any questions about the BLM policy, please contact Tim Nowak at (307) 775-6035, or Ranel Capron at (307) 775-6108.

Sincerely,

Donald A. Simpson
Deputy State Director,
Resources Policy and Management

Attachments

Accuracy Guidelines for GPS Mapping for GIS

Version 1.4
5/21/2003

Prepared by

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BLM / WY 957
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Accuracy Guidelines for GPS Mapping for GIS

INTRODUCTION

Resource management utilizes data that has differing accuracy requirements. Applications such as wildlife sightings, large area vegetation surveys, or soils mapping might require point accuracies on the order of tens of meters. Other activities such as locating and monitoring sensitive resources, site mapping, or trespass determinations might require accuracies of 2 meters or better.

The data collection environment will also affect data accuracy. Data collected under adverse conditions such as forest canopy or rugged terrain will be less accurate than that collected under open conditions. Allowances need to be made to account for these differences.

The data that the federal government uses to make land use or management decisions is often subject to scientific or legal scrutiny from within the agencies, from partners, or outside parties. As a consequence the agency has an obligation to ensure that data has been collected to sufficiently high standards in order to withstand this inspection.

POLICY / REQUIREMENTS

The scale of the target GIS systems is 1:24,000. The minimum accuracy in accordance with the FGDC standards listed below is 10 meters at 95% confidence level.

Data stewards can specify the needed accuracy of a project or theme within the guidelines listed in this document.

All horizontal position data should be reported in the NAD 1983/1993 datum in geographic coordinates (latitude / longitude) or in UTM coordinates in the appropriate zone.

Accuracy standards and map accuracy will be stated at the 95% confidence level to be in compliance with Federal Geographic Data Committee (FGDC) reporting requirements.

Accuracies for general mapping or GIS data collection purposes should be in accordance with the FGDC Geospatial Positioning Accuracy Standards PART 4: Standards for A/E/C and Facility Management (1998).

Any GPS data that will become corporate (as defined in DOI – BLM IM 2001-038, Section 2.0), used in land use or management decisions, used in the location or monitoring of sensitive or threatened resources or species, used in support of law enforcement or safety of life issues, or is subject to scientific or legal scrutiny will require real time or post processed differential correction to ensure data accuracy and quality.

ACCURACY GUIDELINES

Accuracy (95% Confidence)	Method	Example Applications
< 1.0 meter	Post processed differential Carrier phase measurements	Site mapping, trespass, investigation, monitoring
1 to 5 meters	Post processed differential Real time correction	Road and trail mapping, monitoring, GCDB data collection, T&E locations
<10 meters	Post processed differential Real time correction Autonomous	Wildlife sightings, Large Area Vegetation or Geologic Mapping, Data Collection under canopy (appropriate differential correction required)